

PSC All-Hands Meeting July 26, 2023

Laurent Chapon
Associate Laboratory Director for Photon Sciences
APS Director



OutLoud Lecture Series Presents
THE TRANSFORMATION OF ARGONNE:
BIG MACHINES FOR HUGE SCIENTIFIC ADVANCES
AUG 2, 2023 7-8 P.M.



This event is at capacity for in-person attendees, but please register to attend virtually:
https://anl.gov1.qualtrics.com/jfe/form/SV_bdSXnRtRuzrUCcS

PSC Diversity, Equity, Inclusion and Accessibility Council presents

THE VOICE OF PSC

Every third Thursday of the month at 1 p.m.

All are welcome!

August 17, 2023

DR. STEVE ROBBINS

S.L. ROBBINS AND ASSOCIATES

**“YOUR BRAIN IS GOOD AT INCLUSION...
EXCEPT WHEN IT’S NOT”**

Using the fields of cognitive neuroscience, social-psychology, and communication (among others), Dr. Robbins explores the human, hard-wired need to belong – and what happens when that need is not met.

[Join on Zoom](#) - [Add to Calendar](#)



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PSC SAFETY SURVEY IS HERE

PLEASE CHECK YOUR INBOX AND FILL
OUT THE SURVEY. YOUR FEEDBACK IS
IMPORTANT!



U.S. DEPARTMENT OF
ENERGY

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AGENDA

General Updates

Laurent Chapon, Associate Laboratory Director for Photon Sciences, APS Director

Stress Management

Dr. Lisa Pocius, Chief Medical Officer

Hazardous Energy Control

Mike Edelen, APS Engineering Support Division Director

APS Upgrade Update

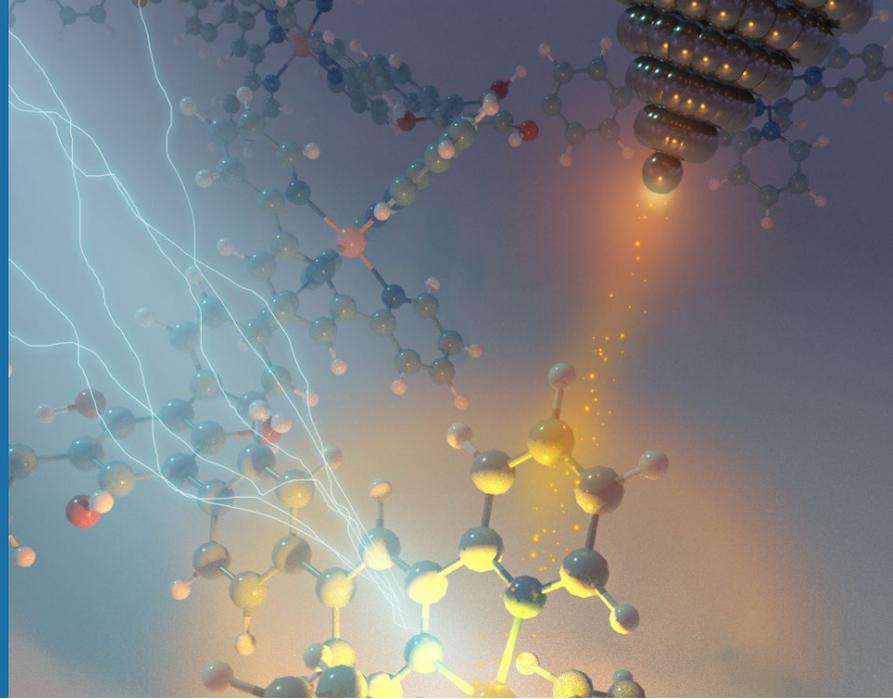
Jim Kerby, APS Upgrade Project Director

Awards and New Starters

Laurent Chapon, Associate Laboratory Director for Photon Sciences, APS Director

General Updates

Laurent Chapon
Associate Laboratory Director for Photon Sciences
APS Director



Ajayi, T.M., Shirato, N., Rojas, T. et al. Characterization of just one atom using synchrotron X-rays. Nature 618, 69–73 (2023).



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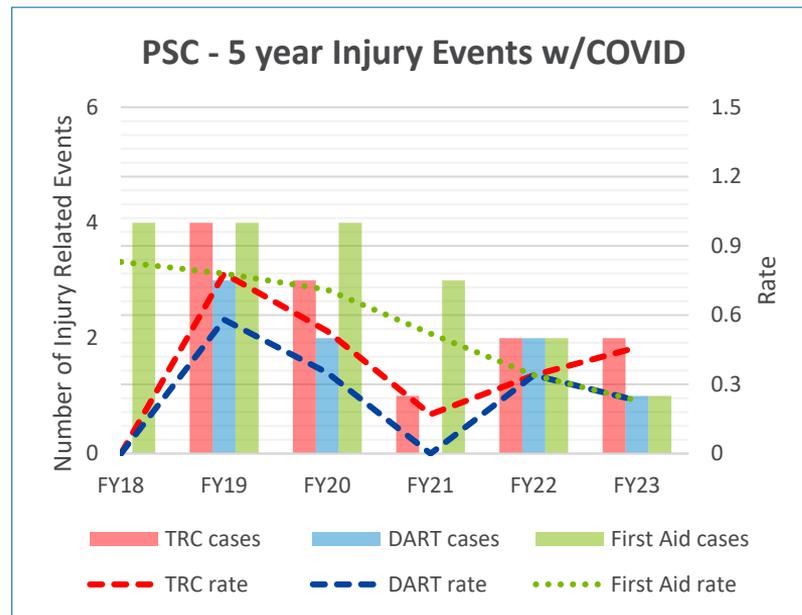
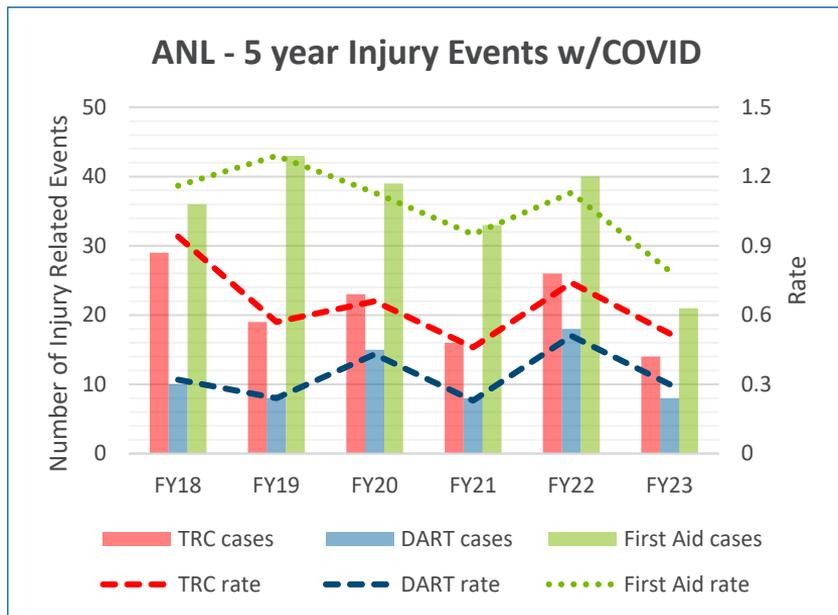


APS

SAFETY

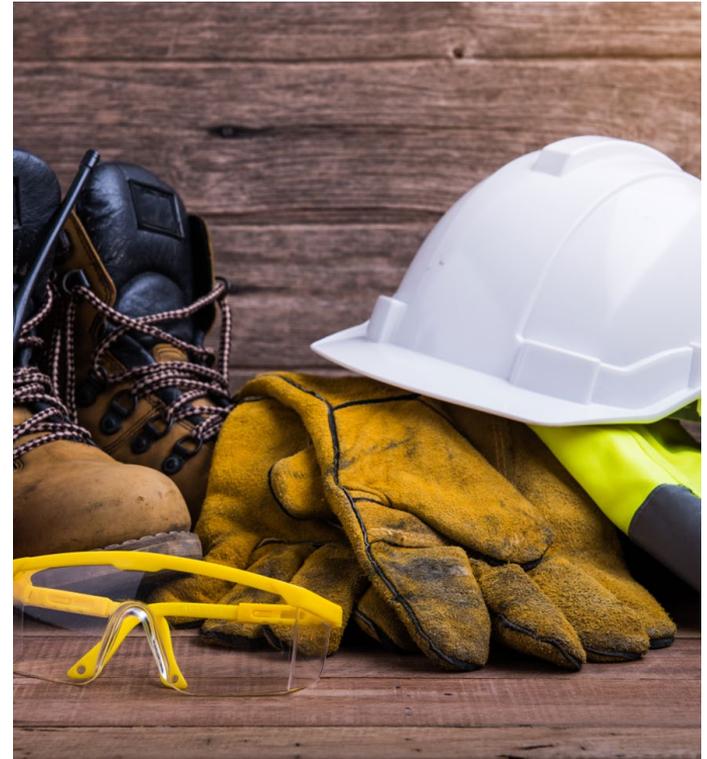
Photon Sciences safety record for FY23 – 1 additional First Aid Case and 1 additional Recordable Case with DART

- 2 First Aid Injury
- 2 OSHA Recordable Cases (TRC)
- 1 Days Away or Restricted Time (DART)



PERSONAL PROTECTIVE EQUIPMENT

- While the tunnel and ratchet doors are open, do not enter if you are not authorized to do so
- Proper PPE is required at all times in all construction areas
 - Hard hats
 - Safety glasses
 - Over-the-ankle safety boots
 - Long pants
 - Quarter-length sleeves

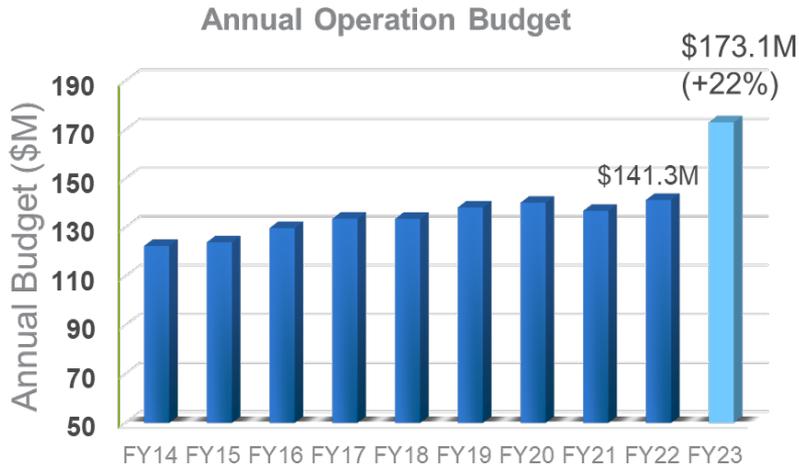


PROPER ELECTRONIC WASTE DISPOSAL

- If items to be disposed of have property tags, reach out to your floor coordinators for proper disposal.
- Floor coordinators are available during working hours (6 a.m.-5 p.m. Monday-Friday).
- Call 630-252-0101 or visit the [floor coordinator request page](#). To contact a specific floor coordinator, [please visit this page](#).

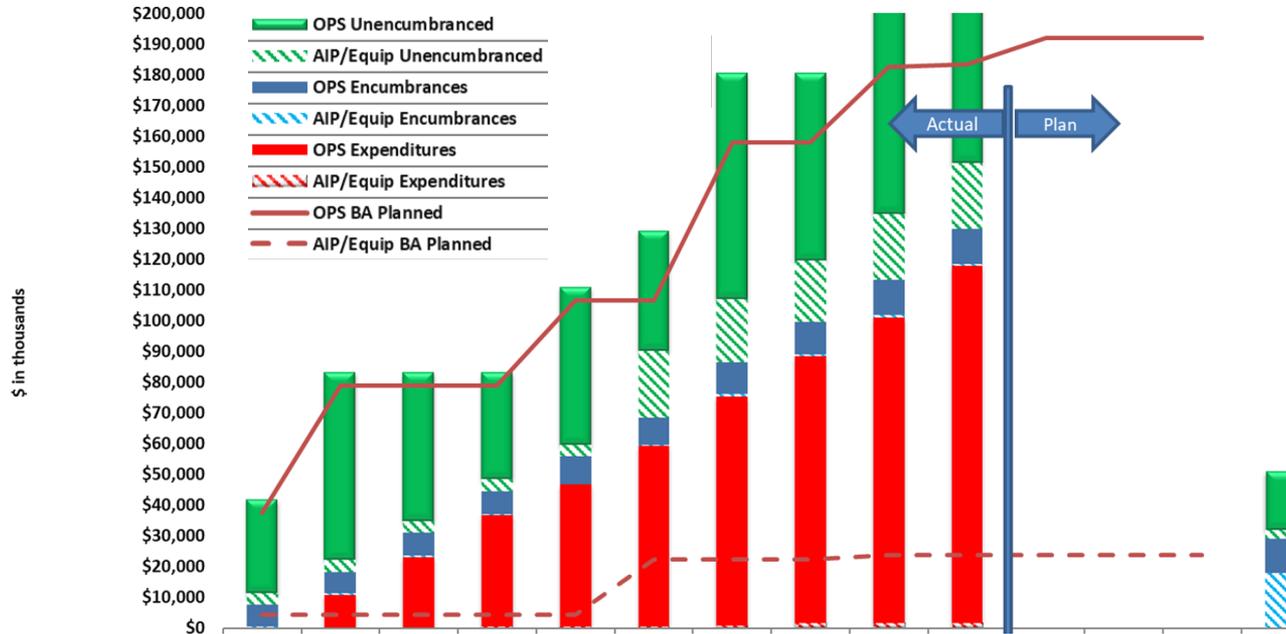


APS OPERATIONS BUDGET



- Budgets for light sources continue to be strongly supported by the Office of Science and DOE
- Support APS ~\$180M for FY24
- *The DOE congressional budget justification marks the budget as “90% of the optimal level”*
- *House marking \$600M (flat with respect to FY23) for LS*
- *Senate marking \$704M in line with budget justification*

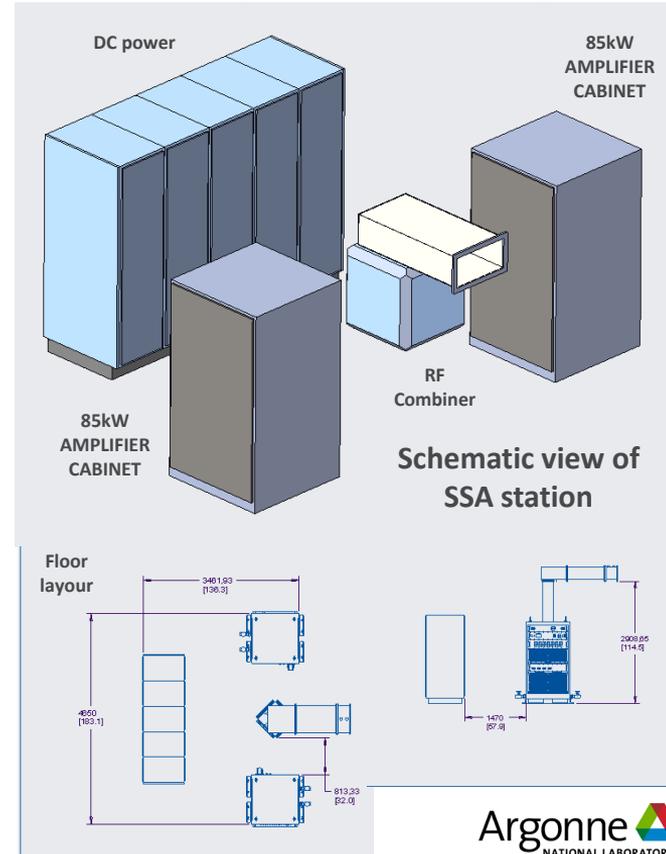
APS OPERATIONS FUNDING AND SPENDING



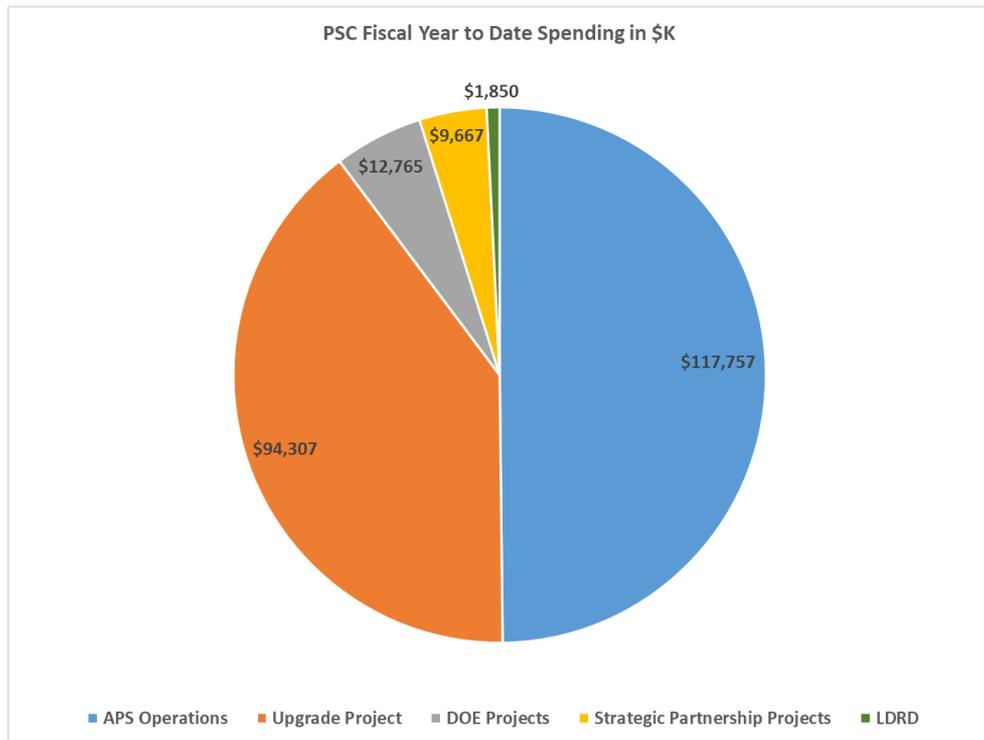
SOLID-STATE RF CONVERSION PROGRAM

Vendor selection in process. Expect contract by end of August 2023

- Plans to convert klystron-based system to solid-state RF sources complete
- 2 MW of RF power at 352 MHz powering 12 RF cavities and 12 individual RF stations
- Expected price of ~\$8-10/W and expected bids from 3 vendors. RFP closed and technical review completed
- We have reserved ~\$16M for initial contract to include at least 8-12 units
- Additional 4 units will be needed for booster RF system



PSC HAS A VARIETY OF SPONSORS



- **Other DOE Sponsors:** Basic Energy Sciences, National Nuclear Security Administration, Vehicle Technologies, High Energy Physics, and Biological & Environmental Research
- **Strategic Partnership Projects:** Dept. of Health & Human Services (NIH), Commercial & Universities, other APS user accounts, other DOE contractors, and other federal agencies

ADDITIONAL PROJECTS/INITIATIVES

eBERlight capabilities for biological and environmental science

Funded, \$3.5M/year



Karolina Michalska

Crystallography
21-ID-D,F,G (LS-CAT)


Full-field imaging
2-BM
32-ID
7-BM


X-ray microscopy
2-ID-D
2-ID-E
(ISN,
Ptychoprobe)


Molecular biology
Advanced Protein
Characterization
Facility


Sample preparation
Cryolab at APS
Lab infrastructure
in bld. 203


Microfluidics
Advanced Protein
Characterization
Facility


Computing
Argonne Leadership
Computing
Facility




Electron microscopy
Center for Nanoscale
Materials
Picoprobe


X-ray absorption spectroscopy
9-BM
20-BM
25-ID-D,E


Small-angle X-ray scattering
12-ID
12-BM




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ADDITIONAL PROJECTS/INITIATIVES



Proposal to Expand X-ray Capabilities with Extreme Light at APS (EXCEL@APS)

Argonne  Advanced Photon Source Version: 2.0



	Instruments							
	Bragg-CDI	Nano-Laue	Advanced full-field	X-ray Raman (LERIX-II)	Engineering materials	Rapid in-situ analysis	Broad-bandpass microscopy	High-res inelastic scattering
Basic Research Needs								
Energy Decarbonization	✓		✓	✓		✓		
Transformative Manufacturing	✓	✓			✓	✓		
Microelectronics & Quantum materials	✓	✓						✓
Circular Economy	✓				✓			
Bio-preparedness, Health & Enviro Research			✓	✓		✓		

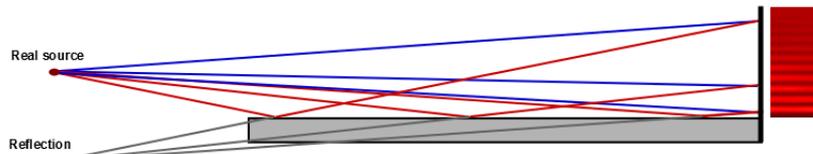
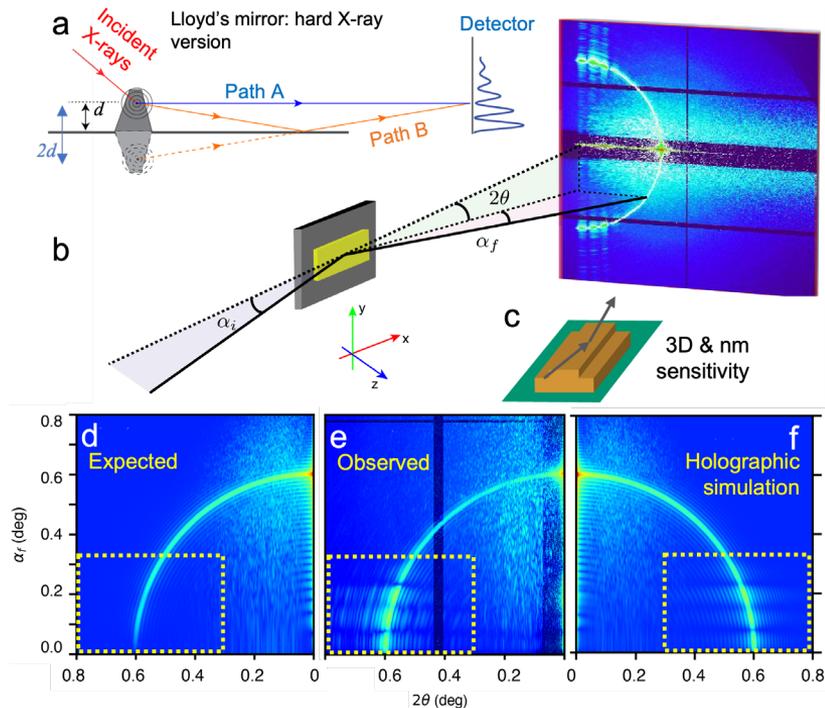
FY24-FY27

Total project cost \$56M

Submitted, targeting CD-0 this FY

BES Program manager: Hannibal Joma

3D MESOSCOPIC INTERFACIAL STRUCTURES IN SINGLE VIEW



https://en.wikipedia.org/wiki/Lloyd%27s_mirror

- Unexpected structure was found in the grazing geometry attributable to coherent multi-beam interference
- The demonstrated technique has great potential for extracting *critical dimensions* for ultra thin-film quantum dots, and nanocircuitry in *microelectronics*
- APS-U CSSI beamline at 9-ID will greatly improve these capabilities

M. Chu, Z. Jiang, M. Wojcik, T. Sun, M. Sprung, and J. Wang, *Nat. Comm.* (in press)

ANNUAL PERFORMANCE APPRAISALS LAUNCH SEPT. 1, 2023

All employees will be assessed on their adherence to the laboratory's Core Values and their support of our Diversity, Equity, Inclusion and Accessibility (DEIA) commitment.



PSC PERFORMANCE APPRAISAL TIMELINE

While the lab timeline differs, there are several weeks in between the start and end dates for you and your manager to complete each step.

Step	Start	End
Employee self evaluation submitted	9/1	9/22 12:00 pm
Division normalization meetings	10/16	10/25
Manager meets with employee and acknowledges the discussion	11/15	12/12
Employee comments & acknowledgement	Once prior step is completed	12/15

ASSESSING CORE VALUES AND DIVERSITY, EQUITY, INCLUSION & ACCESSIBILITY (DEIA)

Argonne's Core Values and behaviors are the best resource when reviewing performance for both the Core Values *and* DEIA evaluations

- [PSC specific Guidance on Assessing Core Values and DEIA in performance appraisals](#)
- [Performance Management for Employees](#)
- [DEIA Roadmap for Employees](#)
- [Performance Management for Supervisors](#)
- [DEIA Roadmap for Supervisors](#)
- [Supervisor Training \(Workday Learning\)](#)
- [Core Values in Performance Appraisals](#)
- [DEIA in Performance Appraisals](#)



www.ansl.gov/our-core-values

OUR CORE VALUES

We believe in them. We live them.

Our actions, as members of the Argonne community, demonstrate what we value. Examples of behaviors we value most are:

Impact Behaviors that demonstrate Impact include:	Safety Behaviors that demonstrate Safety include:	Respect Behaviors that demonstrate Respect include:	Integrity Behaviors that demonstrate Integrity include:	Teamwork Behaviors that demonstrate Teamwork include:
<ul style="list-style-type: none">□ Being curious and open minded in the work we do to achieve science and technology leadership and operational excellence□ Being inclusive in our behavior and needs□ Genuinely considering other points of view□ Embracing and encouraging new ideas and opinions from team members and stakeholders□ Asking for help when needed and providing help when possible□ Constructively questioning/ examining the status quo□ Seeking solutions to problems we think are barriers to creativity to improve results	<ul style="list-style-type: none">□ Speaking up for the safety of myself, my colleagues, and the lab because we all depend on it□ Trusting that speaking up will not be held against you□ Supporting those who speak up with safety concerns□ Paying attention to details and not taking shortcuts□ Being considerate of the physical and psychological well-being of myself and my co-workers	<ul style="list-style-type: none">□ Addressing points of difference candidly, civilly, directly and honestly□ Using appropriate language and behavior at all times□ Refraining from the following unprofessional behavior: shouting, belittling, demeaning others, bullying, swearing, gossiping, and spreading rumors□ Listening to understand□ Allowing others uninterrupted time to speak without talking over them□ Standing up and taking action when I see someone being treated disrespectfully	<ul style="list-style-type: none">□ Doing my job with honesty and integrity, even when no one is looking□ Delivering what I promise, when I promise it – or communicating otherwise□ Giving and sharing credit where credit is due□ Leading by example□ Recognizing and overcoming bias	<ul style="list-style-type: none">□ Engaging diverse team members to achieve even greater success for myself and the Argonne team□ Sharing information in a timely manner for team members to accomplish their work□ Helping each other grow and accomplish individual, group and laboratory goals□ Sharing best practices broadly to advance our collective mission and goals□ Involving people in decisions where outcomes affect them□ Promoting civility, well-being and a sense of community

We all share the responsibility to create a safe, welcoming, and inclusive workplace environment through our behavior.

July 2019

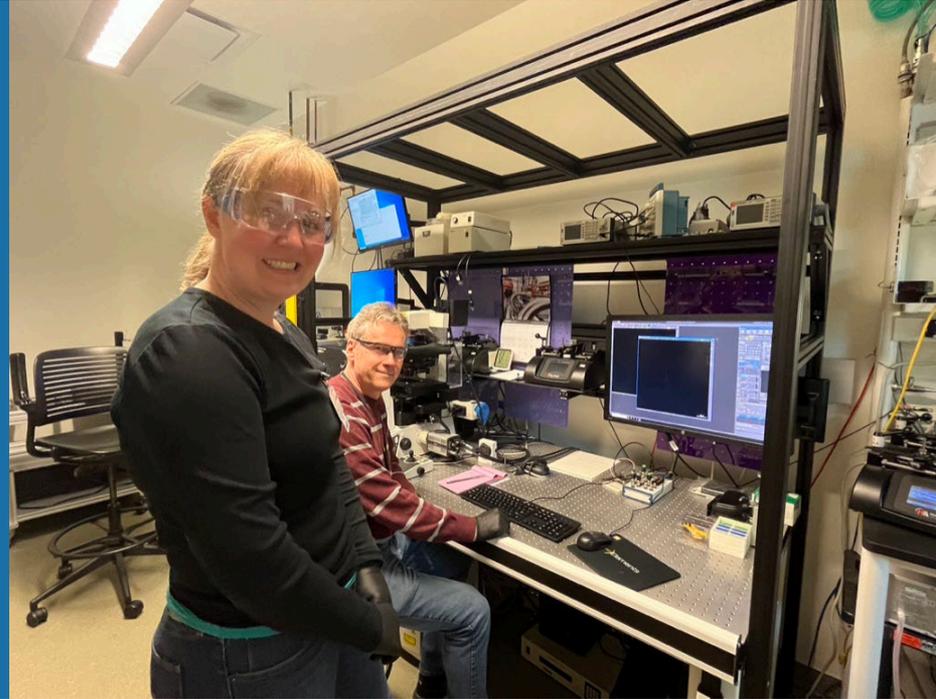
PERFORMANCE APPRAISAL TRAINING

You can find resources to help you prepare for this annual process on the newly updated [Performance Appraisal page](#) on MyArgonne, including links to the trainings below.

<u>DEIA and Core Values in Performance Appraisals</u>	Performance Appraisal Process Training for Employees
8/1, 9-10 a.m.	8/29, 10-11 a.m.
8/10, 1-2 p.m.	9/7, 3-4 p.m.
8/16, 10-11 a.m.	9/13, 11 a.m.-12 p.m.

Awards, New Starters and Events

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INNOVATION

IMPACT ARGONNE

Efim Gluskin, Ibrahim Kesgin, Matthew Kasa, Stephen MacDonald, Jason Ackley, Kurt Boerste, John Andrist, Maofei Qian, Yury Ivanyushenkov

For innovation in the design, fabrication and testing of the world's first superconducting undulator based on Nb₃Sn superconductor wire

EXTRAORDINARY EFFORT

IMPACT ARGONNE

Jeffrey Dooling, Louis Emery, Sarvjit Shastri, Randy Flood, William Jansma, Martin Smith, Anthony Puttkammer, Joseph Gagliano, Mark Martens, John Zientek, Joel Fuerst, Joseph Deyoung, Joseph Gagliano III, Quentin Hasse, Eric McCarthy, Austin Sahr, John TerHAAR, Glenn Moonier, Martin Diaz, Jason Habbe, Robert Lange, Luis Lucero, Julian Mares, Isidro Montesinos, Yury Ivanyushenkov

For extraordinary effort in installation and commissioning of the world's first superconducting undulator based on Nb₃Sn superconductor wire

**ENHANCEMENT
OF ARGONNE'S
REPUTATION**

IMPACT ARGONNE

Jun-Sang Park, Denny Mills, Elmie Peoples-Evans, Jim Kerby, Jon Almer, Jonathan Lang, Lisa Keefe, Sarah Wieghold

For enhancement of Argonne's reputation by leading VIP tours, including Secretary Granholm's visit in 2022

**EXTRAORDINARY
EFFORT**

IMPACT ARGONNE

Chengjun Sun, Mikhail Solovyev, Debora Motta Meira, Michael Pape, George Sterbinsky, Mark Wolfman, Yanna Chen, Juanjuan Huang, Max Wyman, Cunming Liu, Richard Spence, Burak Guzelturk, Don Jensen Jr., Donald Walko, Jinxing Jiang, Guy Jennings, Inhui Hwang

For extraordinary effort in the successful relocation of 20-ID and 11-ID-D user programs to 25-ID

PROGRAM DEVELOPMENT

IMPACT

ARGONNE

Karolina Michalska, Zou Finfrock, Gyorgy Babnigg, Youngchang Kim, Paula Bulaon

For program development: the preparation and submission of a successful proposal to DOE BER for eBERlight, a virtual CAT that will provide an integrated research platform and comprehensive user support to allow users to access several APS beamlines and X-ray techniques

EXTRAORDINARY EFFORT

IMPACT

ARGONNE

Kevin Beyer, Clay White

For extraordinary effort in preparing Sector 11 for construction, building additional hutches for 11-ID-D, while moving data servers, redoing main power and gas supply, and re-routing cooling water for the whole sector without interrupting user support

SAFETY RESULTS

IMPACT

ARGONNE

Chris Gorman

For safety results in the organization and orchestration of the PSC PPE expo on March 27, 2023

EXTRAORDINARY EFFORT

IMPACT

ARGONNE

Robert Soliday

For extraordinary effort in an upgrade of the computing cluster used by the Accelerator Operations and Physics Group, providing twice as many computing cores in the same rack space. Instead of sending the nodes to a landfill, they have taken on new life and purpose, resulting in a major upgrade at very low cost.

**EXTRAORDINARY
EFFORT**

IMPACT ARGONNE

Greg Fystro

For extraordinary effort and playing an instrumental role in multiple system upgrades as part of a refurbishment of the APS linear accelerator

25+ YEAR SERVICE AWARDS

25 years

Daniel Burke
Francesco De Carlo
Mark Jaski
Keith Knight
Ali Mashayekhi
Robert Soliday

30 years

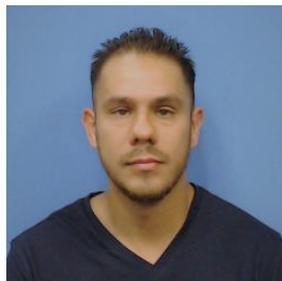
Michael Bracken
Aaron Lopez
Scott Petersen
Rogelio Ranay

35 years

Mohan Ramanathan



NEW STARTERS



Juan Ayala



Michael Garcia



Loronce
Anderson



Luis Velez



Jason
Hoffmeister



Lukasz Pawlik



Shawn Mikeska



Mick Stepp



Gary Sanchez



James Brown

NEW STARTERS



Davor Pavlovic



Miles Bertling



Antonio Gonzalez



Alexia Karales



Matthew Trubac



Zachary
Zolnierowicz



Timothy
Szymanski



Peco Myint



Yang Wang

GET READY FOR YOUR CLOSE-UP!

Impact Argonne Award photography is back!

If you were one of our Impact Argonne Award recipients, please remain after the meeting to take a photo for our new photo wall



Questions?

Always welcoming feedback:
Ichapon@anl.gov



U.S. DEPARTMENT OF
ENERGY

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